

## WEST Search History

DATE: Saturday, June 16, 2007

| Hide?                    | <u>Set</u><br><u>Name</u>  | <u>Query</u>  | <u>Hit</u><br><u>Count</u> |
|--------------------------|--|---|----------------------------|
|                          | <i>DB=PGPB,USPT; PLUR=YES; OP=OR</i>   |   |                            |
| <input type="checkbox"/> | L9   | ((("20040002859"   "20020009000"   "20020059059")!.PN.) .p150-p173.  <br>(("7180892"   "5706396"   "5638451"   "5450248"   "5822360"   "5280561"  <br>"6446037"   "6122618"   "4972484"   "6016473"   "6529604"   "6879652"  <br>"6968564"   "7006555"   "7146503"   "6738744"   "6748362"   "6768980"  <br>"6996521"   "6604072"   "7031921"   "6526385")!.PN.) .p67-p149. | 25                         |
|                          | <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>  |   |                            |
| <input type="checkbox"/> | L8   | L7 and phase  | 61                         |
| <input type="checkbox"/> | L7   | L6 and compress\$3  | 98                         |
| <input type="checkbox"/> | L6   | L5 and audio  | 122                        |
| <input type="checkbox"/> | L5   | watermark\$3 and l1   | 135                        |
| <input type="checkbox"/> | L4   | (audio near cod\$3) and noise and compress\$4 and (phase near2 modulat\$3 near2<br>frequency)   | 21                         |
|                          | <i>DB=PGPB,USPT; PLUR=YES; OP=OR</i>   |   |                            |
| <input type="checkbox"/> | L3   | L2 and l1   | 19                         |
|                          | (20040143443 6721306 20050065781 4809274 5600646 5838664 7196641<br>6446037 6529604 20050010395 20050010396 5594494 5638451 5471355<br>5801757 5999985 6353807 6751239 20030076558 20060039461 3824332 |   |                            |
| <input type="checkbox"/> | L2   | 3885217 4013962 4659875 4972484 5291557 5822360 5915234 6094636<br>6122618 20040002859 20040092228 20050004791 20050207583 20070016404<br>20070033030 3568161 4486624 4580291 4849966 5001742 5121409 5280561<br>5450248 5504759 5596578 5706396 5764847 6016473 6151077 ).pn.  | 50                         |
| <input type="checkbox"/> | L1   | 704/\$.ccls.  | 18380                      |

END OF SEARCH HISTORY

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**Search Results - Record(s) 1 through 25 of 25 returned.**

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L9: Entry 1 of 25

File: PGPB

Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002859  
DOCUMENT-IDENTIFIER: US 20040002859 A1

TITLE: Method and architecture of digital condng for transmitting and packing  
audio signals

PUBLICATION-DATE: January 1, 2004

US-CL-PUBLISHED: 704/229

US-CL-CURRENT: 704/229

INT-CL-PUBLISHED: [07] G10L 19/02

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>G10 L 19/00</u> | 20060101 |
| CIPS | <u>G10 L 19/02</u> | 20060101 |

L9: Entry 2 of 25

File: PGPB

May 16, 2002

PGPUB-DOCUMENT-NUMBER: 20020059059  
DOCUMENT-IDENTIFIER: US 20020059059 A1

TITLE: Auxiliary channel masking in an audio signal  
PUBLICATION-DATE: May 16, 2002

US-CL-PUBLISHED: 704/200.1

US-CL-CURRENT: 704/200.1

INT-CL-PUBLISHED: [07] G10L 19/00, G06F 15/00, G10L 11/00

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPN | <u>C02 F 1/42</u>  | 20060101 |
| CIPN | <u>C02 F 1/28</u>  | 20060101 |
| CIPS | <u>C02 F 1/463</u> | 20060101 |
| CIPS | <u>C02 F 1/48</u>  | 20060101 |
| CIPN | <u>C02 F 1/66</u>  | 20060101 |
| CIPS | <u>G11 B 20/00</u> | 20060101 |
| CIPS | <u>H04 H 1/00</u>  | 20060101 |

L9: Entry 3 of 25

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020009000

DOCUMENT-IDENTIFIER: US 20020009000 A1

TITLE: Adding imperceptible noise to audio and other types of signals to cause significant degradation when compressed and decompressed

PUBLICATION-DATE: January 24, 2002

US-CL-PUBLISHED: 365/200

US-CL-CURRENT: 365/200

INT-CL-PUBLISHED: [07] G11C 29/00

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>G06 F 1/00</u>  | 20060101 |
| CIPS | <u>G10 L 19/00</u> | 20060101 |
| CIPS | <u>G11 B 20/00</u> | 20060101 |
| CIPS | <u>G06 F 21/00</u> | 20060101 |
| CIPS | <u>H04 B 1/66</u>  | 20060101 |

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L9: Entry 4 of 25

File: USPT

Feb 20, 2007

US-PAT-NO: 7180892

DOCUMENT-IDENTIFIER: US 7180892 B1

TITLE: Voice and data exchange over a packet based network with voice detection

DATE-ISSUED: February 20, 2007

US-CL-ISSUED: 370/389; 704/214, 704/246

US-CL-CURRENT: 370/389; 704/214, 704/246

INT-CL-ISSUED:

| TYPE | IPC       | DATE     | IPC-OLD    |
|------|-----------|----------|------------|
| IPCP | H04L12/56 | 20060101 | H04L012/56 |

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPP | <u>H04 L 12/56</u> | 20060101 |

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L9: Entry 5 of 25

File: USPT

Dec 5, 2006

US-PAT-NO: 7146503

DOCUMENT-IDENTIFIER: US 7146503 B1

TITLE: System and method of watermarking signal

DATE-ISSUED: December 5, 2006

US-CL-ISSUED: 713/176; 380/252, 380/238

US-CL-CURRENT: 713/176; 380/238, 380/252

## INT-CL-ISSUED:

| TYPE | IPC       | DATE     | IPC-OLD     |
|------|-----------|----------|-------------|
| IPCP | H04L9/00  | 20060101 | H04L009/00  |
| IPCS | H04K1/02  | 20060101 | H04K001/02  |
| IPCS | H04N7/167 | 20060101 | H04N007/167 |

## INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>H04 K 1/02</u>  | 20060101 |
| CIPP | <u>H04 L 9/00</u>  | 20060101 |
| CIPS | <u>H04 N 7/167</u> | 20060101 |

L9: Entry 6 of 25

File: USPT

Apr 18, 2006

US-PAT-NO: 7031921

DOCUMENT-IDENTIFIER: US 7031921 B2

TITLE: System for monitoring audio content available over a network

DATE-ISSUED: April 18, 2006

## PRIOR-PUBLICATION:

| DOC-ID            | DATE          |
|-------------------|---------------|
| US 20020082837 A1 | June 27, 2002 |

US-CL-ISSUED: 704/270.1; 704/275, 704/205, 704/236, 704/231, 709/229, 705/52, 713/200

US-CL-CURRENT: 704/270.1; 704/205, 704/231, 704/236, 704/275, 705/52, 709/229

## INT-CL-ISSUED:

| TYPE | IPC       | DATE     | IPC-OLD    |
|------|-----------|----------|------------|
| IPCP | G10L21/00 | 20060101 | G10L021/00 |

## INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPP | <u>G10 L 21/00</u> | 20060101 |

L9: Entry 7 of 25

File: USPT

Feb 28, 2006

US-PAT-NO: 7006555

DOCUMENT-IDENTIFIER: US 7006555 B1

TITLE: Spectral audio encoding

DATE-ISSUED: February 28, 2006

US-CL-ISSUED: 375/133; 375/135, 375/136, 380/42, 380/253, 725/18

US-CL-CURRENT: 375/133; 375/135, 375/136, 380/253, 380/42, 725/18

## INT-CL-ISSUED:

| TYPE | IPC       | DATE     | IPC-OLD     |
|------|-----------|----------|-------------|
| IPCP | H04B1/713 | 20060101 | H04B001/713 |
| IPCS | H04L9/00  | 20060101 | H04L009/00  |
| IPCS | H04H9/00  | 20060101 | H04H009/00  |
| IPCS | H04N7/16  | 20060101 | H04N007/16  |

## INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPP | <u>H04 B 1/713</u> | 20060101 |
| CIPS | <u>H04 H 9/00</u>  | 20060101 |
| CIPS | <u>H04 L 9/00</u>  | 20060101 |
| CIPS | <u>H04 N 7/16</u>  | 20060101 |

L9: Entry 8 of 25

File: USPT

Feb 7, 2006

US-PAT-NO: 6996521

DOCUMENT-IDENTIFIER: US 6996521 B2

TITLE: Auxiliary channel masking in an audio signal

DATE-ISSUED: February 7, 2006

## PRIOR-PUBLICATION:

| DOC-ID            | DATE         |
|-------------------|--------------|
| US 20020059059 A1 | May 16, 2002 |

US-CL-ISSUED: 704/200; 704/200.1, 704/230, 375/240.03

US-CL-CURRENT: 704/200; 375/240.03, 704/200.1, 704/230

## INT-CL-ISSUED:

| TYPE | IPC       | DATE     | IPC-OLD    |
|------|-----------|----------|------------|
| IPCP | G01L11/00 | 20060101 | G01L011/00 |

## INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPP | <u>G01 L 11/00</u> | 20060101 |

L9: Entry 9 of 25

File: USPT

Nov 22, 2005

US-PAT-NO: 6968564

DOCUMENT-IDENTIFIER: US 6968564 B1

TITLE: Multi-band spectral audio encoding

DATE-ISSUED: November 22, 2005

US-CL-ISSUED: 725/9; 381/97, 725/19

US-CL-CURRENT: 725/9; 381/97, 725/19

INT-CL-ISSUED: [07] H04H 9/00, H04N 7/16

INT-CL-CURRENT:

| TYPE | IPC               | DATE     |
|------|-------------------|----------|
| CIPP | <u>H04 H 1/00</u> | 20060101 |

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L9: Entry 10 of 25

File: USPT

Apr 12, 2005

US-PAT-NO: 6879652

DOCUMENT-IDENTIFIER: US 6879652 B1

TITLE: Method for encoding an input signal

DATE-ISSUED: April 12, 2005

US-CL-ISSUED: 375/377; 380/236

US-CL-CURRENT: 375/377; 380/236

INT-CL-ISSUED: [07] H04L 23/00

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>G10 L 19/02</u> | 20060101 |
| CIPS | <u>G10 L 19/00</u> | 20060101 |

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L9: Entry 11 of 25

File: USPT

Jul 27, 2004

US-PAT-NO: 6768980

DOCUMENT-IDENTIFIER: US 6768980 B1

TITLE: METHOD OF AND APPARATUS FOR HIGH-BANDWIDTH STEGANOGRAPHIC EMBEDDING OF DATA IN A SERIES OF DIGITAL SIGNALS OR MEASUREMENTS SUCH AS TAKEN FROM ANALOG DATA STREAMS OR SUBSAMPLED AND/OR TRANSFORMED DIGITAL DATA

DATE-ISSUED: July 27, 2004

US-CL-ISSUED: 704/500; 382/248, 382/251

US-CL-CURRENT: 704/500; 382/248, 382/251

INT-CL-ISSUED: [07] H04B 1/66, H04N 7/24

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>G06 T 1/00</u>  | 20060101 |
| CIPS | <u>G10 L 19/00</u> | 20060101 |
| CIPS | <u>H04 N 1/32</u>  | 20060101 |

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L9: Entry 12 of 25

File: USPT

Jun 8, 2004

US-PAT-NO: 6748362

DOCUMENT-IDENTIFIER: US 6748362 B1

TITLE: Process, system, and apparatus for embedding data in compressed audio, image video and other media files and the like

DATE-ISSUED: June 8, 2004

US-CL-ISSUED: 704/500; 382/251, 713/179  
US-CL-CURRENT: 704/500; 382/251, 713/179

INT-CL-ISSUED: [07] H04L 5/00, H03M 13/11

INT-CL-CURRENT:

| TYPE                                  | IPC | DATE     |
|---------------------------------------|-----|----------|
| CIPS <u>G06</u> <u>T</u> <u>1/00</u>  |     | 20060101 |
| CIPS <u>G10</u> <u>L</u> <u>19/00</u> |     | 20060101 |
| CIPS <u>H04</u> <u>N</u> <u>1/32</u>  |     | 20060101 |

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L9: Entry 13 of 25

File: USPT

May 18, 2004

US-PAT-NO: 6738744  
DOCUMENT-IDENTIFIER: US 6738744 B2  
**\*\* See image for Certificate of Correction \*\***

TITLE: Watermark detection via cardinality-scaled correlation

DATE-ISSUED: May 18, 2004

US-CL-ISSUED: 704/273; 713/193  
US-CL-CURRENT: 704/273; 713/193

INT-CL-ISSUED: [07] G10L 15/22

INT-CL-CURRENT:

| TYPE                                  | IPC | DATE     |
|---------------------------------------|-----|----------|
| CIPS <u>G10</u> <u>L</u> <u>19/14</u> |     | 20060101 |
| CIPS <u>G10</u> <u>L</u> <u>19/00</u> |     | 20060101 |

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File: USPT

Aug 5, 2003

US-PAT-NO: 6604072  
DOCUMENT-IDENTIFIER: US 6604072 B2

TITLE: Feature-based audio content identification

DATE-ISSUED: August 5, 2003

US-CL-ISSUED: 704/231; 704/236  
US-CL-CURRENT: 704/231; 704/236

INT-CL-ISSUED: [07] G10L 15/08, G06F 15/37, G06K 9/00

## INT-CL-CURRENT:

| TYPE                                  | IPC | DATE     |
|---------------------------------------|-----|----------|
| CIPS <u>G11</u> <u>B</u> <u>20/10</u> |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>20/00</u> |     | 20060101 |
| CIPS <u>H04</u> <u>H</u> <u>7/00</u>  |     | 20060101 |
| CIPS <u>H04</u> <u>H</u> <u>7/04</u>  |     | 20060101 |

L9: Entry 15 of 25

File: USPT

Mar 4, 2003

US-PAT-NO: 6529604

DOCUMENT-IDENTIFIER: US 6529604 B1

TITLE: Scalable stereo audio encoding/decoding method and apparatus

DATE-ISSUED: March 4, 2003

US-CL-ISSUED: 381/22; 381/23, 700/94

US-CL-CURRENT: 381/22; 381/23, 700/94

INT-CL-ISSUED: [07] H04R 5/00

## INT-CL-CURRENT:

| TYPE                                 | IPC | DATE     |
|--------------------------------------|-----|----------|
| CIPS <u>H04</u> <u>B</u> <u>1/66</u> |     | 20060101 |
| CIPS <u>H04</u> <u>H</u> <u>5/00</u> |     | 20060101 |

L9: Entry 16 of 25

File: USPT

Feb 25, 2003

US-PAT-NO: 6526385

DOCUMENT-IDENTIFIER: US 6526385 B1

TITLE: System for embedding additional information in audio data

DATE-ISSUED: February 25, 2003

US-CL-ISSUED: 704/504; 704/502, 704/503, 704/273, 704/200.1, 348/423.1, 348/484

US-CL-CURRENT: 704/504; 348/423.1, 348/484, 704/200.1, 704/273, 704/502, 704/503

INT-CL-ISSUED: [07] G10L 21/04

## INT-CL-CURRENT:

| TYPE                                   | IPC | DATE     |
|--|-----|----------|
| CIPS <u>G10</u> <u>L</u> <u>21/04</u>  |     | 20060101 |
| CIPN <u>G11</u> <u>B</u> <u>20/00</u>  |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>20/10</u>  |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>27/031</u> |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>27/036</u> |     | 20060101 |
| CIPS <u>H04</u> <u>H</u> <u>1/00</u>   |     | 20060101 |
| CIPS <u>G10</u> <u>L</u> <u>21/00</u>  |     | 20060101 |



CIPS G11 B 15/05 20060101  
CIPS H04 N 1/32 20060101

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L9: Entry 17 of 25

File: USPT

Sep 3, 2002

US-PAT-NO: 6446037  
DOCUMENT-IDENTIFIER: US 6446037 B1

TITLE: Scalable coding method for high quality audio

DATE-ISSUED: September 3, 2002

US-CL-ISSUED: 704/229; 704/230, 704/501, 704/200.1, 704/226, 375/240, 375/253, 381/22, 381/23

US-CL-CURRENT: 704/229; 375/240, 375/253, 381/22, 381/23, 704/200.1, 704/226, 704/230, 704/501

INT-CL-ISSUED: [07] G10L 19/02

INT-CL-CURRENT:

| TYPE                                  | IPC | DATE     |
|---------------------------------------|-----|----------|
| CIPS <u>G10</u> <u>L</u> <u>19/02</u> |     | 20060101 |
| CIPS <u>G10</u> <u>L</u> <u>19/00</u> |     | 20060101 |

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L9: Entry 18 of 25

File: USPT

Sep 19, 2000

US-PAT-NO: 6122618  
DOCUMENT-IDENTIFIER: US 6122618 A

TITLE: Scalable audio coding/decoding method and apparatus

DATE-ISSUED: September 19, 2000

US-CL-ISSUED: 704/500; 704/501, 704/222, 704/230

US-CL-CURRENT: 704/500; 704/222, 704/230, 704/501

INT-CL-ISSUED: [07] G10L 19/00

INT-CL-CURRENT:

| TYPE                                  | IPC | DATE     |
|---------------------------------------|-----|----------|
| CIPS <u>G10</u> <u>L</u> <u>19/02</u> |     | 20060101 |
| CIPS <u>G10</u> <u>L</u> <u>19/00</u> |     | 20060101 |
| CIPS <u>H04</u> <u>B</u> <u>1/66</u>  |     | 20060101 |
| CIPS <u>H04</u> <u>N</u> <u>7/30</u>  |     | 20060101 |
| CIPS <u>H04</u> <u>N</u> <u>7/26</u>  |     | 20060101 |

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L9: Entry 19 of 25

File: USPT

Jan 18, 2000

US-PAT-NO: 6016473  
DOCUMENT-IDENTIFIER: US 6016473 A

TITLE: Low bit-rate spatial coding method and system

DATE-ISSUED: January 18, 2000

US-CL-ISSUED: 704/500; 704/501

US-CL-CURRENT: 704/500; 704/501

INT-CL-ISSUED: [06] G10L 3/02

INT-CL-CURRENT:

| TYPE | IPC               | DATE     |
|------|-------------------|----------|
| CIPS | <u>H04 B 1/66</u> | 20060101 |
| CIPS | <u>H04 S 1/00</u> | 20060101 |
| CIPS | <u>H04 S 3/00</u> | 20060101 |

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L9: Entry 20 of 25

File: USPT

Oct 13, 1998

US-PAT-NO: 5822360

DOCUMENT-IDENTIFIER: US 5822360 A

TITLE: Method and apparatus for transporting auxiliary data in audio signals

DATE-ISSUED: October 13, 1998

US-CL-ISSUED: 375/200; 375/206, 370/493, 370/495, 370/497, 370/527, 370/529, 704/219, 704/201

US-CL-CURRENT: 375/140; 370/493, 370/495, 370/497, 370/527, 370/529, 375/147, 704/201, 704/219

INT-CL-ISSUED: [06] H04B 1/707, H04B 1/69

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPS | <u>G10 L 19/00</u> | 20060101 |
| CIPN | <u>H04 J 13/00</u> | 20060101 |
| CIPS | <u>H04 J 9/00</u>  | 20060101 |
| CIPS | <u>H04 J 13/02</u> | 20060101 |
| CIPS | <u>H04 J 15/00</u> | 20060101 |
| CIPN | <u>H04 B 15/02</u> | 20060101 |
| CIPS | <u>H04 H 1/00</u>  | 20060101 |
| CIPS | <u>H04 B 1/66</u>  | 20060101 |
| CIPS | <u>H04 J 7/00</u>  | 20060101 |
| CIPS | <u>H04 B 1/707</u> | 20060101 |
| CIPN | <u>H04 B 15/04</u> | 20060101 |

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L9: Entry 21 of 25

File: USPT

Jan 6, 1998

US-PAT-NO: 5706396

DOCUMENT-IDENTIFIER: US 5706396 A

TITLE: Error protection system for a sub-band coder suitable for use in an audio signal processor

DATE-ISSUED: January 6, 1998

US-CL-ISSUED: 395/2.37; 395/2.35, 395/2.3, 395/2.25

US-CL-CURRENT: 704/228; 704/216, 704/221, 704/226.

INT-CL-ISSUED: [06] G10L 9/00

INT-CL-CURRENT:

| TYPE | IPC                | DATE     |
|------|--------------------|----------|
| CIPN | <u>G10 L 19/00</u> | 20060101 |
| CIPS | <u>H04 B 1/66</u>  | 20060101 |

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L9: Entry 22 of 25

File: USPT

Jun 10, 1997

US-PAT-NO: 5638451

DOCUMENT-IDENTIFIER: US 5638451 A

TITLE: Transmission and storage of multi-channel audio-signals when using bit rate-reducing coding methods

DATE-ISSUED: June 10, 1997

US-CL-ISSUED: 381/2; 381/18, 395/2.38

US-CL-CURRENT: 381/2; 381/18, 704/229

INT-CL-ISSUED: [06] H04H 5/00

INT-CL-CURRENT:

| TYPE | IPC               | DATE     |
|------|-------------------|----------|
| CIPS | <u>H04 B 1/66</u> | 20060101 |
| CIPS | <u>H04 H 5/00</u> | 20060101 |
| CIPS | <u>H04 S 3/00</u> | 20060101 |

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L9: Entry 23 of 25

File: USPT

Sep 12, 1995

US-PAT-NO: 5450248

DOCUMENT-IDENTIFIER: US 5450248 A

TITLE: System, apparatus and methods for recording and/or reproducing on and/or from a re-recordable record carrier digital signals containing information which results in concealment during reproduction

DATE-ISSUED: September 12, 1995

US-CL-ISSUED: 360/32; 360/40

US-CL-CURRENT: 360/32; 360/40

INT-CL-ISSUED: [06] G11B 5/00, G11B 5/09

## INT-CL-CURRENT:

| TYPE                                   | IPC | DATE     |
|--|-----|----------|
| CIPS <u>G11</u> <u>B</u> <u>27/031</u> |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>20/18</u>  |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>27/32</u>  |     | 20060101 |
| CIPS <u>G11</u> <u>B</u> <u>27/036</u> |     | 20060101 |

L9: Entry 24 of 25

File: USPT

Jan 18, 1994

US-PAT-NO: 5280561

DOCUMENT-IDENTIFIER: US 5280561 A

TITLE: Method for processing audio signals in a sub-band coding system

DATE-ISSUED: January 18, 1994

US-CL-ISSUED: 395/2

US-CL-CURRENT: 704/200

INT-CL-ISSUED: [05] G10L 5/00

## INT-CL-CURRENT:

| TYPE                                 | IPC | DATE     |
|--------------------------------------|-----|----------|
| CIPS <u>H04</u> <u>B</u> <u>1/66</u> |     | 20060101 |
| CIPS <u>H04</u> <u>M</u> <u>3/56</u> |     | 20060101 |

L9: Entry 25 of 25

File: USPT

Nov 20, 1990

US-PAT-NO: 4972484

DOCUMENT-IDENTIFIER: US 4972484 A

TITLE: Method of transmitting or storing masked sub-band coded audio signals

DATE-ISSUED: November 20, 1990

US-CL-ISSUED: 381/37

US-CL-CURRENT: 704/200.1

INT-CL-ISSUED: [05] G10L 7/02

## INT-CL-CURRENT:

| TYPE                                 | IPC | DATE     |
|--------------------------------------|-----|----------|
| CIPS <u>H04</u> <u>H</u> <u>5/00</u> |     | 20060101 |
| CIPS <u>H04</u> <u>B</u> <u>1/66</u> |     | 20060101 |

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Titles of most frequently occurring classifications of patents returned  
from a search of 10690220 on Jun 11 , 2007

5 704/500 (4 OR, 1 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/500 .AUDIO SIGNAL BANDWIDTH COMPRESSION OR EXPANSION

5 704/200.1 (4 OR, 1 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/200 .SPEECH SIGNAL PROCESSING  
704/200.1 ..Psychoacoustic

4 704/229 (2 OR, 2 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/200 .SPEECH SIGNAL PROCESSING  
704/201 ..For storage or transmission  
704/229 ...Adaptive bit allocation

4 704/230 (1 OR, 3 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/200 .SPEECH SIGNAL PROCESSING  
704/201 ..For storage or transmission  
704/230 ...Quantization

3 348/552 (0 OR, 3 XR)  
Class 348 TELEVISION  
348/552 .COMBINED WITH DIVERSE ART DEVICE (E.G., COMPUTER,  
TELEPHONE)

3 381/22 (2 OR, 1 XR)  
Class 381 ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES  
381/1 .BINAURAL AND STEREOPHONIC  
381/19 ..Quadrasonic  
381/20 ...Matrix  
381/21 ....4-2-4  
381/22 .....Variable decoder

3 704/501 (0 OR, 3 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/500 .AUDIO SIGNAL BANDWIDTH COMPRESSION OR EXPANSION  
704/501 ..With content reduction encoding

3 381/23 (0 OR, 3 XR)  
Class 381 ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES  
381/1 .BINAURAL AND STEREOPHONIC  
381/19 ..Quadrasonic  
381/20 ...Matrix  
381/21 ....4-2-4  
381/23 .....With encoder

3 704/226 (0 OR, 3 XR)  
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
704/200 .SPEECH SIGNAL PROCESSING  
704/201 ..For storage or transmission  
704/226 ...Noise

- 3 704/E19.016 (0 OR, 3 XR)  
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
 704/E19.001 .SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR  
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO  
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER  
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)  
 704/E19.01 ..Using spectral analysis, e.g., transform vocoders, subband  
 vocoders, perceptual audio coders, psychoacoustically based lossy encoding, etc.,  
 e.g., MPEG audio, Dolby AC-3, etc. (EPO)  
 704/E19.015 ...Quantization or dequantization of spectral components  
 (EPO)  
 704/E19.016 ....Scalar quantization (EPO)
- 2 370/263 (2 OR, 0 XR)  
 Class 370 MULTIPLEX COMMUNICATIONS  
 370/259 .SPECIAL SERVICES  
 370/260 ..Conferencing  
 370/263 ...Conferee signals combined or distributed via time  
 channels
- 2 348/14.09 (0 OR, 2 XR)  
 Class 348 TELEVISION  
 348/14.01 .TWO-WAY VIDEO AND VOICE COMMUNICATION (E.G., VIDEOPHONE)  
 348/14.08 ..Conferencing (e.g., loop)  
 348/14.09 ...Conferencing with multipoint control unit
- 2 348/14.13 (0 OR, 2 XR)  
 Class 348 TELEVISION  
 348/14.01 .TWO-WAY VIDEO AND VOICE COMMUNICATION (E.G., VIDEOPHONE)  
 348/14.12 ..Transmission control (e.g., resolution or quality)  
 348/14.13 ...Compression or decompression
- 2 370/402 (0 OR, 2 XR)  
 Class 370 MULTIPLEX COMMUNICATIONS  
 370/351 .PATHFINDING OR ROUTING  
 370/389 ..Switching a message which includes an address header  
 370/400 ...Having a plurality of nodes performing distributed  
 switching  
 370/401 ....Bridge or gateway between networks  
 370/402 .....Bridge between bus systems
- 2 348/E7.083 (0 OR, 2 XR)  
 Class 348 TELEVISION  
 348/E7.001 .TELEVISION SYSTEMS (EPO)  
 348/E7.077 ..Systems for two-way working (EPO)  
 348/E7.083 ...Conference systems (EPO)
- 2 348/E7.084 (0 OR, 2 XR)  
 Class 348 TELEVISION  
 348/E7.001 .TELEVISION SYSTEMS (EPO)  
 348/E7.077 ..Systems for two-way working (EPO)  
 348/E7.083 ...Conference systems (EPO)  
 348/E7.084 ....Multipoint control units therefor (EPO)
- 2 370/465 (0 OR, 2 XR)  
 Class 370 MULTIPLEX COMMUNICATIONS  
 370/464 .COMMUNICATION TECHNIQUES FOR INFORMATION CARRIED IN PLURAL  
 CHANNELS  
 370/465 ..Adaptive
- 2 386/104 (0 OR, 2 XR)  
 Class 386 TELEVISION SIGNAL PROCESSING FOR DYNAMIC RECORDING OR

REPRODUCING  
 386/46 .PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC RECORDING OR  
 REPRODUCING  
 386/95 ..Having another signal  
 386/96 ...Audio signal  
 386/104 ....Digital audio signal

2 704/201 (0 OR, 2 XR)  
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
 704/200 .SPEECH SIGNAL PROCESSING  
 704/201 ..For storage or transmission

2 380/238 (1 OR, 1 XR)  
 Class 380 CRYPTOGRAPHY  
 380/200 .VIDEO CRYPTOGRAPHY  
 380/210 ..Video electric signal modification (e.g., scrambling)  
 380/236 ...Modifying accompanying audio signal  
 380/238 ....Including frequency modification of audio signal or  
 frequency shifting of audio carrier

2 704/219 (1 OR, 1 XR)  
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
 704/200 .SPEECH SIGNAL PROCESSING  
 704/201 ..For storage or transmission  
 704/219 ...Linear prediction

2 704/233 (1 OR, 1 XR)  
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
 704/200 .SPEECH SIGNAL PROCESSING  
 704/231 ..Recognition  
 704/233 ...Detect speech in noise

2 704/216 (1 OR, 1 XR)  
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,  
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION  
 704/200 .SPEECH SIGNAL PROCESSING  
 704/201 ..For storage or transmission  
 704/211 ...Time  
 704/216 ....Correlation function

10690220\_CLS.txt  
Most frequently occurring classifications of patents returned  
from a search of 10690220 on Jun 11 , 2007

Original Classifications

4 704/500  
4 704/200.1  
2 370/263  
2 704/229  
2 381/22

Cross-Reference Classifications

3 348/552  
3 704/230  
3 704/501  
3 381/23  
3 704/226  
3 704/E19.016  
2 348/14.09  
2 348/14.13  
2 370/402  
2 348/E7.083  
2 348/E7.084  
2 370/465  
2 704/229  
2 386/104  
2 704/201

Combined Classifications

5 704/500  
5 704/200.1  
4 704/229  
4 704/230  
3 348/552  
3 381/22  
3 704/501  
3 381/23  
3 704/226  
3 704/E19.016  
2 370/263  
2 348/14.09  
2 348/14.13  
2 370/402  
2 348/E7.083  
2 348/E7.084  
2 370/465  
2 386/104  
2 704/201  
2 380/238  
2 704/219  
2 704/233  
2 704/216